MORRIS, NICHOLS, ARSHT & TUNNELL LLP
1201 NORTH MARKET STREET
P.O. BOX 1347
WILMINGTON, DELAWARE 19899-1347

(302) 658-9200
(302) 658-3989 FAX

STEPHEN J. KRAFTSCHIK
(302) 351-9378
(302) 498-6233 FAX
SKRAFTSCHIK@MNAT.COM

February 7, 2018

The Honorable Richard G. Andrews
United States District Court
for the District of Delaware
844 North King Street
Wilmington, DE 19801

VIA ELECTRONIC FILING

Re: *Acceleration Bay LLC*; C.A. Nos. 16-453 (RGA); 16-454 (RGA); and 16-455 (RGA)

Dear Judge Andrews:

As the Court requested (Ex. A, Jan. 29, 2018 Hearing Tr. ("Tr.") at 78-79), Defendants write to address the expert testimony provided at the hearing concerning Term 4 ("means for connecting"). The testimony confirmed that the alleged "First Embodiment" is irrelevant to the claims at issue and, even if relevant, is not sufficient to accomplish the stated function of Term 4.

Figs. 3A and B are Irrelevant

Plaintiff has argued that "[t]he first embodiment is disclosed in Figures 3A and 3B and described in the corresponding description [at 5:33-55]." D.I. 345 at 1 (all D.I. citations refer to C.A. No. 16-453). Dr. Mitzenmacher testified that Figs. 3A, 3B depict a node z "connecting to the broadcast channel [that] is shown in Fig. 3A." Tr. at 29:1-3. He also testified that the first paragraph of claim 13 "defines the plurality of broadcast channels" and that Term 4 relates to connecting to *one of the defined* plurality of broadcast channels. *Id*. at 29:5-17. But as Dr. Mitzenmacher also admitted, the "plurality of broadcast channels" are defined in the claims to require that "the number of participants is at least two greater than m thus resulting in a non-complete graph." Tr. at 29:24-30:21; A-1 ('344 patent) at 30:20-21; A-2 ('966 patent) at 30:52-54. Fig. 3A, however, is a "complete" graph where the "number of participants" is 5, *one* more than m (4), as Dr. Mitzenmacher also admitted. Tr. at 30:5-9, 18-31. Thus, based on both the plain language of the claims and Dr. Mitzenmacher's admissions, the Fig. 3A graph cannot be one of the "plurality of broadcast channels" of claim 19 in either the '344 patent or the '966 patent.

Although Dr. Mitzenmacher pointed out that the Fig. *3B* graph meets the language of the claims for a "plurality of broadcast channels" (*id*. at 30:14-17), the fact that the channel is "non-complete" *only after* node z joins is irrelevant because the "means for connecting" relates to the graph *being joined*, not the graph that results from the joining, as Dr. Mitzenmacher admitted. Tr. at 29:5-17. The testimony of Dr. Kelly on this same point was unequivocal: Figs. 3A, 3B are not relevant to the claims at issue. Tr. at 76:21-77:17.

Accordingly, Figs. 3A, 3B depict a computer connecting to a small regime "complete" graph, whereas Term 4 is directed to connecting to a channel "of interest" from among a plurality of "non-complete" channels. A-1 at 30:23-25. Thus, the alleged first embodiment is not relevant to the claims at issue and cannot be used as corresponding structure for Term 4.

The Alleged Algorithm of Figs. 3A, 3B is Insufficient

Even if Figs. 3A, 3B were relevant to the asserted claims, the corresponding disclosure is clearly insufficient. Each of the "three steps" is no more than a "black box" disclosure which would improperly expand the scope of Term 4 to cover virtually any algorithm for connecting. *ePlus, Inc. v. Lawson Software, Inc.*, 700 F.3d 509, 518 (Fed. Cir. 2012).

Alleged Step One. Plaintiff contends that the first step in the algorithm is "locating the broadcast channel." D.I. 345 at 3. Plaintiff relies on the following portion of the specification:

> Each computer is aware of one or more "portal computers" through which that computer may locate the broadcast channel. A seeking computer locates the broadcast channel by contacting the portal computers until it finds one that is currently fully connected to the broadcast channel.

A-1 at 5:37-42; *see* D.I. 345 at 3. This thin disclosure says nothing about *how* the seeking computer is able to make contact with the portal computer, which is no simple task. As Dr. Kelly explained: "there are tens of thousands of ports that the seeking computer may have to dial to actually make a connection with the portal computer." Tr. at 66:3-17; *see also id*. at 34:9-11 (Dr. Mitzenmacher agreeing that "a portal computer, a typical computer would have tens of thousands of ports."). Dr. Kelly explained that "there has to be some mechanism to deal with that – such a large number of potential ports. And the patent goes on to explain that there are ways to deal with that. It's the port ordering algorithm, for example." *Id*. at 66:18-22. Dr. Kelly also testified that "it is just not practical for a seeking computer to dial[]those [ports] one after the other. It would take far too long." *Id*. at 67:1-3. Indeed, the patent specification supports Dr. Kelly's opinion, stating that the dialing of each port would be a "problem." A-1 at 12:41-52. Dr. Kelly further testified that "you've got to find some mechanism for identifying, or increasing the likelihood that you will identify the port. And that's what the port ordering algorithm is used for." Tr. at 67:7-9. This is exactly what the patent teaches. *See, e.g.*, A-1 at 12:49-52.

Yet another problem not addressed by the disclosure in col. 5 is that a seeking computer needs to know when to stop searching for a portal computer and conclude that a portal computer cannot be found. *See, e.g*. A-1 at 12:58-65. In other words, because of the sheer number of possible ports that could be searched by a seeking computer, there must be a mechanism for determining when the search should end. *Id*. Dr. Mitzenmacher conceded that "you might not want the computer to do that [i.e., keep endlessly searching]." Tr. at 39:5-40:11. Although col. 5 is silent on this issue, other parts of the specification detail how the seeking computer stops searching when a certain "search depth" is reached. *See, e.g*. A-1 at 12:33-65; 18:57-19:5.

Accordingly, at least for the reasons that both the "port ordering algorithm" and the "search depth" disclosures in the specification are "integral to performing the stated function" of

locating a portal computer, the brief disclosure in col. 5 should not, by itself, be considered sufficient corresponding structure for the "connecting" function of Term 4. *Gemstar-TV Guide Intern., Inc. v. ITC*, 383 F.3d 1352, 1362 (Fed. Cir. 2004) (Structure that is "integral to performing the stated function" constitutes corresponding structure.).

Alleged Step Two. Plaintiff contends that the second step in the algorithm is "identifying the neighbors for the connecting computer." D.I 345 at 3. The entire portion of the specification on which Plaintiff relies for this step is the following sentence: "The found portal computer then directs the identifying of four computers (i.e., to be the seeking computer's neighbors) to which the seeking computer is to connect." *Id*., A-1 at 5:42-45. This single sentence says nothing at all about *how* the portal computer is able to find the neighbors for the seeking computer. Dr. Medvidovic addressed this lack of disclosure by stating that it is "a streamlined and straightforward process for the portal computer to identify four computers to which the seeking computer can connect." D.I. 346 at 5. He did not say what that "process" is or explain why it is "streamlined and straightforward." Dr. Mitzenmacher similarly provided no explanation at the hearing for why this sentence in col. 5 is a sufficient disclosure, other than arguing that it is "understandable" to a POSITA. Tr. at 19:25-20:16.

In fact, the patent specification explains that it is anything but "straightforward" for the portal computer to identify the neighbors for the seeking computer because the portal computer, like all participants, has only *local knowledge*. *See, e.g.* A-1 at 13:23-36. Local knowledge means that any given participant only has knowledge of its own neighbors, not "global knowledge" of the entire network. *Id*.; see also Tr. at 44:2-45:16; 46:23-47:9 (Dr. Mitzenmacher agreeing that the portal computer has only local knowledge.) The patent explains that "[t]his local knowledge makes it difficult for a portal computer to randomly select four neighbors for a seeking computer." A-1 at 13:34-36. Dr. Kelly explained that "a portal computer that has been connected to by the seeking computer only knows about a subset of the rest of the network… and you simply can't use that local knowledge to find the neighbors, because that ends up with elongating the network." Tr. at 68:4-23; *see also* A-1 at 6:64-7:29 (explaining that, although a "seeking computer could connect to the broadcast channel by connecting to computers either directly connected to the found portal computer or directly connected to one of its neighbors… [a] possible problem with such a scheme" is elongation of the network.).

The patents address this "local knowledge" problem by describing a mechanism whereby the found "portal computer sends an edge connection request message through one of its internal connections that is randomly selected." A-1 at 13:37-39. Then, the "receiving computer again sends the edge connection request message through one of its internal connections that is randomly selected." *Id*. at 13:39-42. "This sending of the message corresponds to a random walk through the graph that represents the broadcast channel." *Id*. at 13:42-44; *see also id*. at 18:53-56; 19:66-20:44; 23:34-24:38 (describing in detail the algorithm for finding a neighbor). This sending of messages to identify neighbors is the *only* technique described in the patents for overcoming the "local knowledge" problem inherent in the claimed m-regular systems. As such, it is clearly integral to the connecting function.

Accordingly, because the found portal computer has only local knowledge, the step of locating neighbors is not at all "straightforward" as Plaintiff contends, and the sending of the

"edge connection request" described in various other portions of the specification is "integral to performing the stated function" and thus should be included as corresponding structure for the "connecting" function of Term 4. *Gemstar-TV Guide*, 383 F.3d at 1362.

Alleged Step Three. Plaintiff contends that the third step in the algorithm "requires that each of the four computers to cooperate with the seeking computer to connect to the broadcast channel." D.I 345 at 3. The entire support for this step is at col. 5, lines 45-48: "Each of these four computers then cooperates with the seeking computer to effect the connecting of the seeking computer to the broadcast channel." *Id*. This single sentence says nothing about how the identified neighbors will cooperate "to effect the connecting." Dr. Medvidovic merely asserted that the "seeking computer and the four [neighbor] computers can connect with each other using basic networking procedures." D.I 346 at 5. Dr. Mitzenmacher provided no more of an explanation at the hearing. Tr. at 19:12-24.

Once again, the process disclosed in the patent specification is more complicated than Plaintiff's experts contend. Fig. 17 provides the actual algorithm for adding a neighbor and includes critical details such as adjusting the "connection state" of the seeking participant as it adds neighbors to avoid a problem with forming "disjoint broadcast channels." A-1 at 12:66-13:6; 23:3-8. Furthermore, the add neighbor routine must adjust the respective lists of neighbors to reflect the new connections, or else the broadcast channel cannot function to send information, which relies on these neighbor lists. *Id*. at 23:8-11. Dr. Kelly explained these critical details of the add neighbor process. Tr. at 69:4-70:8. Dr. Mitzenmacher admitted that it is "important" to update the list of neighbors as new neighbors are added. *Id*. at 56:8-57:1.

Conclusion. Plaintiff relies upon Figs. 3A, 3B as a distinct "first embodiment" that is sufficient corresponding structure for the "connecting" function of Term 4, but these figures, being directed to adding a node to a complete graph, are not even relevant to the non-complete graphs of the claims. Furthermore, the sparse description in col. 5 is not sufficient to accomplish the connecting function of Term 4. There are many critical details that are addressed elsewhere in the specification and which are clearly "integral" to the claimed connecting function and thus should be included in any corresponding structure for Term 4.

Defendants respectfully ask the Court to amend its previous claim construction to clarify that Figs. 3A, 3B, along with column 5, lines 33-55, do not alone provide sufficient corresponding structure for the "means for connecting" of Term 4.

Respectfully,

/s/ Stephen J. Kraftschik

Stephen J. Kraftschik (#5623)

SJK:ncf
Enclosure
cc: Clerk of Court (Via Hand Delivery)
All Counsel of Record (Via Electronic Mail)